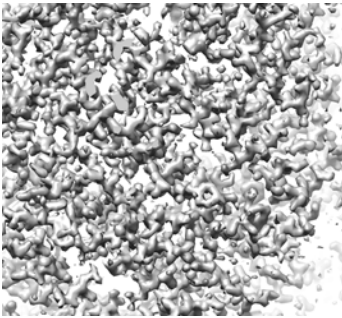


CryoTEMs

EM01CT

JEOL CRYO ARM 300 (JEM-Z300FSC)

- Cold FEG operation @ 300 kV
- in-column Ω type energy filter
- Gatan K3 detector
- Data acquisition software JADAS (JEOL) 、 SerialEM
- Hole-free phase plate



Apo-Ferritin

Pixel size: 0.794 [$\text{\AA}^\circ/\text{pix}$] in counting mode
collected: 588 (500 micrographs/hour)
Electron dose: ~ 40 [$e^-/\text{\AA}^\circ^2$]
Frame rate: 40 [frames]
Exposure time: 2.8 [sec]
Defocus range: 1.0–2.0 [μm]
Resolution: 1.90 \AA° (FSC 0.143 CUT-OFF)
Number of particles: 156,532 particles



Grid screening and automated data collection for high-resolution study

EM02CT

JEOL CRYO ARM 200 (JEM-Z200FSC)

- Cold FEG operation @ 200 kV
- in-column Ω type energy filter
- Gatan K2 summit
- Data acquisition software JADAS (JEOL) 、 SerialEM
- Hole-free phase plate



Apo-Ferritin

Pixel size: 0.854 [$\text{\AA}^\circ/\text{pix}$] in counting mode
collected: 2182 (198 micrographs/hour)
Electron dose: ~ 40 [$e^-/\text{\AA}^\circ^2$]
Frame rate: 40 [frames]
Exposure time: 6.8 [sec]
Defocus range: 1.0–2.0 [μm]
Resolution: 2.08 \AA° (FSC 0.143 CUT-OFF)
Number of particles: 136,789 particles



Sample screening, grid screening, user-training, etc.

High-resolution studies are possible using over-night data collection.

Available equipment at facility for grid preparation

During your visit, you can use equipment shown below to pre-process grids or for cryo-grid preparation.

Hands-on practice for these equipment is available during pre-use training.



JEC-3000FC
Grid cleaning



JEC-3000FC
Gold sputter coating



IB-29510VET
Carbon evaporation



Fischione 1070
Hydrophilization of gold or
graphene grids



TFS
Vitrobot Mark IV



Leica
EM GP2



SKB401Y
UV/Ozone cleaner
Oxidization of graphene

A pre-use training (1-3 days) is required to use the Cryo-TEM.

Prepared frozen grids can be shipped to the facility via dry-shipper.

Loading grids into the auto-loader will be done by the facility staff.

Grids can be loaded up to 12 grids at a time, three times a day (10:00 am, 1:00 pm, 5:00 pm).

We provide on the fly image processing during the data collection for Motion correction and CTF estimation. The results will be provided together with the raw image data afterwards.

We are also planning to provide a training course for beginners to acquire high-resolution data acquisition by using SerialEM and how to load grids into auto-loader by yourself.